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Chris L. Stone

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FOLEY & LARDNER LLP

P.O. BOX 80278

SAN DIEGO, CA 92138-0278

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/600,081  
Filing Date: June 20, 2003  
Appellant(s): STONE ET AL.

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Steven A. Moore  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 18 August 2010 appealing from the Office action mailed 02 September 2009.

**(1) Real Party in Interest**

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The following is a list of claims that are rejected and pending in the application:

Claims 2, 4, 6, 7, 10-14, 17-19, 24-27, 32, 33, 36, 38, 40, and 42 stand rejected under 35 USC 103(a) as being unpatentable over Alattar (US 7,020,304) in view of Brunk (US 7,289,643).

Claims 3, 15, and 16 stand rejected under 35 USC 103(a) as being unpatentable over Alattar (US 7,020,304) in view of Brunk (US 7,289,643) and further in view of Baker (US 6,912,010).

Claims 20-23 and 28-31 stand rejected under 35 USC 103(a) as being unpatentable over Alattar (US 7,020,304) in view of Brunk (US 7,289,643) and further in view of Nicholas (US 2002/0054089).

Claim 35 stands rejected under 35 USC 103(a) as being unpatentable over Alattar (US 7,020,304) in view of Brunk (US 7,289,643) in view of Serret-Avila (US 6,785,815) and further in view of Nakamura (US 6,915,422).

Claim 39 stands rejected under 35 USC 103(a) as being unpatentable over Alattar (US 7,020,304) in view of Brunk (US 7,289,643) and further in view of Zhao (US 6,487,301).

#### **(4) Status of Amendments After Final**

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

#### **(5) Summary of Claimed Subject Matter**

The examiner has no comment on the summary of claimed subject matter contained in the brief.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

**(7) Claims Appendix**

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

**(8) Evidence Relied Upon**

7,020,304	ALATTAR et al.	3-2006
7,289,643	BRUNK et al.	10-2007
6,912,010	BAKER et al.	6-2005
2002/0054089	NICHOLAS et al.	5-2002
6,915,422	NAKAMURA	7-2005
6,785,815	SERRET-AVILA et al.	8-2004
6,487,301	ZHAO	11-2002

## **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2, 4, 6, 7, 10-14, 17-19, 24-27, 32, 33, 36, 38, 40, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alattar (US 7,020,304) in view of Brunk (US 7,289,643).

Regarding claim 2, Alattar teaches a method of tracking a broadcast program, comprising:

inserting a unique watermark value into a program to be broadcast (Col. 5, lines 59-63);

deriving a fingerprint value based on said program's content (Col. 20, lines 15-17);

storing said program's watermark value and associated fingerprint value (Col. 10, lines 10-18; Col. 20, lines 50-54);

detecting any watermark value inserted in a given broadcast program  
(Col. 1, lines 29-39; Col. 3, lines 10-17; Col. 8, lines 24-28; Col. 20, lines 46-51);

deriving a fingerprint value based on said given broadcast program's  
content (Col. 20, lines 15-17); and

creating a database in which said unique watermark(s) and their  
associated derived fingerprint values for a plurality of unique programs to be  
broadcast are stored (Col. 10, lines 10-36; Col. 20, lines 38-54);

registering said unique watermark and associated derived fingerprint value  
for said program to be broadcast in said database (Col. 10, lines 10-36; Col. 20,  
lines 38-54; Col. 4, lines 1-19 of US 6,505,160 which is incorporated by reference  
from Col. 10, lines 30-36 of Alattar); and

identifying said given broadcast program, i.e. the watermark may contain  
broadcast monitoring, creator, distributor, and recipient information as well as  
identifying which movie was broadcast, who broadcast it, and when it was  
broadcast (Col. 8, lines 13-36, Col. 8, line 61-Col. 9, line 4), said identification  
comprising:

comparing any detected watermark value with said database of registered  
watermark values, Note: a watermark value, according to Alattar, not only serves  
as a calibration signal but also can include identifiers, that relate the identifiers  
from the watermark to corresponding identifiers in a database that has additional  
information to identify the content owner, distributor, etc (Col. 10, lines 10-18);

if a detected watermark value matches a registered watermark value from said database of registered watermark values, cross-checking said fingerprint value derived from said given broadcast program against said database of registered fingerprints (Col. 20, lines 38-57).

Alattar does not clearly teach redundantly identifying said broadcast program, said redundant identification comprising: if said fingerprint matches a registered fingerprint from said database of registered fingerprints, a first identification information associated with said registered watermark value is compared with a second identification information associated with said registered fingerprint to assess a status of said broadcast program.

Brunk, explicitly incorporated by reference in Alattar (Col 20, Lines 26-35) teaches creating a database in which said unique watermark(s) and their associated derived fingerprint values for a plurality of unique programs to be broadcast are stored (Col. 4, lines 52-67; Col. 5, lines 1-26; Col. 7, lines 4-29);

registering said unique watermark and associated derived fingerprint value for said program to be broadcast in said database (Col. 4, lines 52-67; Col. 5, lines 1-26; Col. 7, lines 4-29); and

redundantly identifying said broadcast program, e.g. a watermark containing additional information for use in conjunction with a content signature, i.e. fingerprint (Col. 6, lines 40-52; Col. 6, line 65-Col. 7, line 50; Col. 8, line 64-Col. 9, line 4). The content signature can be used to determine a content ID,



licensing or registration data, other metadata, etc (Col. 1, lines 50-64; Col. 5, lines 15-26; Col. 6, line 65-Col. 7, line 3). The watermark can be used to determine owner ID, metadata, security information, copy control data, etc (Col. 6, line 65-Col. 7, line 3);

said redundant identification comprising:

comparing any detected watermark value with said database of registered watermark values (Col. 7, lines 4-29);

if a detected watermark value matches a registered watermark value from said database of registered watermark values, cross-checking said fingerprint value derived from said given broadcast program against said database of registered fingerprints (Col. 3, lines 20-40; Col. 4, lines 52-67; Col. 5, lines 1-26; Col. 6, lines 14-32; Col. 7, lines 4-30); and

if said fingerprint matches a registered fingerprint from said database of registered fingerprints, a first identification information associated with said registered watermark value is compared with a second identification information associated with said registered fingerprint to assess a status of said broadcast program, i.e. the fingerprint and watermark are compared and determines the content to be authentic or modified (Col. 6, lines 39-52), Note: the fingerprint and the watermark may both contain the same information and when compared the information will coincide and prove the content to be authentic or will be different and prove the content to be modified in some way.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alattar to redundantly identify said broadcast program, said redundant identification comprising: if said fingerprint matches a registered fingerprint from said database of registered fingerprints, a first identification information associated with said registered watermark value is compared with a second identification information associated with said registered fingerprint to assess a status of said broadcast program, using the known watermarking and fingerprinting technique as well as the known content-identifying technique taught by Brunk in combination with the watermarking and fingerprinting technique of Alattar, for the purpose of providing an extra layer of security for media content and to provide a content verification tool.

Regarding claim 4, Alattar in view of Brunk teaches said program to be broadcast has an associated embedded audio data stream (Alattar-Col. 2, lines 7-10 of US 6,505,160 which is incorporated by reference from Col. 10, lines 30-36 of Alattar); and

said unique watermark is encoded into the bits of said program's embedded audio data stream, i.e. tag in a file header (Alattar-Col. 3, lines 55-57 of US 6,505,160 which is incorporated by reference from Col. 10, lines 30-36 of Alattar).

Regarding claim 6, Alattar in view of Brunk teaches reporting the results of said cross-checking to a registrant of said program to be broadcast, i.e. data is determined to be authentic or modified; user is presented with all matches (Brunk-Col. 6, lines 39-52; Col. 9, lines 33-37; Col. 12, lines 34-48).

Regarding claim 7, Alattar in view of Brunk teaches comparing said fingerprint value derived from said given broadcast program with all said stored fingerprint values when said fingerprint value derived from said given broadcast program is different than said stored fingerprint value associated with said stored watermark, i.e. recalculated content signature is compared to stored signatures in a database (Brunk-Col. 12, lines 34-48).

Regarding claim 10, Alattar teaches a method for enabling reliable identification of a content comprising:

embedding a watermark value into said content to produce an embedded content (Col. 5, lines 56-63);

generating a fingerprint associated with said content (Col. 20, lines 9-17);

registering information comprising said watermark value, wherein said information can be subsequently used to identify said content, i.e. the watermark may contain broadcast monitoring, creator, distributor, and recipient information as well as identifying which movie was broadcast, who broadcast it, and when it

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was broadcast (Col. 8, lines 13-36, Col. 8, line 61-Col. 9, line 4; Col. 10, lines 10-18; Col. 4, lines 1-19 of US 6,505,160 which is incorporated by reference from Col. 10, lines 30-36 of Alattar), said identification comprising:

generating a fingerprint associated with a received content (Col. 20, lines 15-17);

analyzing said received content to detect at least one watermark value (Col. 1, lines 29-39; Col. 3, lines 10-17; Col. 8, lines 24-28; Col. 20, lines 46-51);

identifying said received content by comparing said detected watermark value with a database of registered watermark values, Note: a watermark value, according to Alattar, not only serves as a calibration signal but also can include identifiers, that relate the identifiers from the watermark to corresponding identifiers in a database that has additional information to identify the content owner, distributor, etc (Col. 10, lines 10-18);

if said detected watermark value matches a registered watermark value from said database of registered watermark values, said fingerprint is compared with a database of registered fingerprints (Col. 20, lines 38-57).

Alattar does not clearly teach registering information comprising said watermark value and said fingerprint, wherein said information can be subsequently used to redundantly identify said content, said redundant identification comprising: if said derived fingerprint matches a registered fingerprint from said database of registered fingerprints, a first identification

information associated with said stored watermark value is compared with a second identification information associated with said fingerprint to assess a status of said received content.

Brunk, explicitly incorporated by reference in Alattar (Col 20, Lines 26-35) teaches embedding a content signature in a watermark and registering a content signature in a database; the watermark and content signature are used to redundantly identify a content item (Col. 2, lines 40-65; Col. 6, line 65-Col. 7, line 3), said redundant identification comprising:

identifying said received content by comparing said detected watermark value with a database of registered watermark values (Col. 7, lines 4-29);

if a detected watermark value matches a registered watermark value from said database of registered watermark values, said fingerprint is compared with a database of registered fingerprints (Col. 3, lines 20-40; Col. 4, lines 52-67; Col. 5, lines 1-26; Col. 6, lines 14-32; Col. 7, lines 4-30); and

if said derived fingerprint matches a registered fingerprint from said database of registered fingerprints, a first identification information associated with said registered watermark value is compared with a second identification information associated with said registered fingerprint to assess a status of said broadcast program, i.e. the fingerprint and watermark are compared and determines the content to be authentic or modified (Col. 6, lines 39-52), Note: the fingerprint and the watermark may both contain the same information and

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when compared the information will coincide and prove the content to be authentic or will be different and prove the content to be modified in some way.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alattar to include registering information comprising said watermark value and said fingerprint, wherein said information can be subsequently used to redundantly identify said content, said redundant identification comprising: if said derived fingerprint matches a registered fingerprint from said database of registered fingerprints, a first identification information associated with said stored watermark value is compared with a second identification information associated with said fingerprint to assess a status of said received content, using the known watermarking and fingerprinting technique as well as the known content-identifying technique taught by Brunk in combination with the watermarking and fingerprinting technique of Alattar, for the purpose of providing an extra layer of security to a media content and to provide a content verification tool.

Regarding claim 11, Alattar in view of Brunk teaches said fingerprint is generated by analyzing inherent characteristics of the content (Alattar-Col. 20, lines 9-17).

Regarding claim 12, Alattar in view of Brunk teaches said inherent characteristics comprise at least one of luminance, chroma, gamma, or amplitude levels of the content (Alattar-Col. 20, lines 9-17).

Regarding claim 13, Alattar in view of Brunk teaches said fingerprint is generated for at least portions of an audio or video component of said signal (Alattar-Col. 20, lines 9-17).

Regarding claim 14, Alattar in view of Brunk teaches said watermark value is embedded in at least portions of an audio or video component of said content (Alattar-Col. 5, lines 56-63).

Regarding claim 17, Alattar in view of Brunk teaches receiving information comprising at least said watermark value and said fingerprint at a registration authority (Alattar-Col. 10, lines 10-18; Col. 4, lines 1-19 of US 6,505,160 which is incorporated by reference from Col. 10, lines 30-36 of Alattar; Brunk-Col. 2, lines 40-65); and

verifying the received information, i.e. verifying that the content is authentic or modified (Brunk-Col. 2, lines 40-65, Col. 6, lines 40-53; Alattar-Col. 10, lines 10-18; Col. 20, lines 49-55).

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Regarding claim 18, Alattar in view of Brunk teaches comparing at least one of said watermark value or said fingerprint against a database of registered watermark values and fingerprints (Alattar-Col. 10, lines 10-18; Col. 20, lines 49-55; Brunk-Col. 7, lines 4-30).

Regarding claim 19, Alattar in view of Brunk teaches registering is completed when said comparing produces no matches (Col. 10, lines 29-36 of US 6,505,160 which is incorporated by reference from Col. 10, lines 30-36 of Alattar).

Regarding claim 24, Alattar in view of Brunk teaches receiving additional content identification information (Alattar-Col. 5, lines 59-63; Col. 3, line 65-Col. 4, line 14 of US 6,505,160 which is incorporated by reference from Col. 10, lines 30-36 of Alattar).

Regarding claim 25, Alattar in view of Brunk teaches said additional content identification information comprises at least one of content title, ownership information, or origination information (Col. 5, lines 59-63; Col. 3, line 65-Col. 4, line 14 of US 6,505,160 which is incorporated by reference from Col. 10, lines 30-36 of Alattar).



Regarding claim 26, claim is analyzed with respect to claim 18.

Regarding claim 27, claim is analyzed with respect to claim 19.

Regarding claim 32, Alattar teaches a method for enabling identification of a received content comprising: generating a fingerprint associated with said received content (Col. 20, lines 15-17);

analyzing said received content to discern the presence of embedded watermarks (Col. 1, lines 29-39; Col. 3, lines 10-17; Col. 8, lines 24-28; Col. 20, lines 46-51); and

identifying said received content in accordance with a plurality of registered fingerprint and watermark values, i.e. the watermark may contain broadcast monitoring, creator, distributor, and recipient information as well as identifying which movie was broadcast, who broadcast it, and when it was broadcast (Col. 10, lines 10-36; Col. 20, lines 39-57; Col. 4, lines 1-19 of US 6,505,160 which is incorporated by reference from Col. 10, lines 30-36 of Alattar), wherein:

at least one watermark value is detected as a result of said analyzing (Col. 1, lines 29-39; Col. 3, lines 10-17; Col. 8, lines 24-28; Col. 20, lines 46-51);

said identifying comprises comparing a detected watermark value with a database of registered watermark values (Col. 20, lines 50-55);

matching a content signature with a registered content signature (Alattar-Col. 20, lines 38-59).

Alattar does not clearly teach identifying said received content by redundant utilization of both of said generated fingerprint and said analyzing; if said fingerprint matches a registered fingerprint from said database of registered fingerprints, a first identification information associated with said stored watermark value is compared with a second identification information associated with said fingerprint to assess a status of said received content.

Brunk, explicitly incorporated by reference in Alattar (Col 20, Lines 26-35) teaches a watermark containing additional information for use in conjunction with a content signature, i.e. fingerprint (Col. 6, lines 40-52; Col. 6, line 65-Col. 7, line 50). The content signature can be used to determine a content ID, licensing or registration data, other metadata, etc (Brunk-Col. 1, lines 50-64). The watermark can be used to determine owner ID, metadata, security information, copy control data, etc (Brunk-Col. 6, line 65-Col. 7, line 3); and

a watermark containing a content signature is matched to a corresponding watermark value, then once matched, forwarding the content signature to the owner's database where it is matched to song information (Col. 3, lines 20-40; Col. 4, lines 52-67; Col. 5, lines 1-26; Col. 6, lines 14-32; Col. 7, lines 4-30);

said identifying comprises comparing the detected watermark value with a database of registered watermark values (Col. 34, lines 34-47);

if the detected watermark value matches a registered watermark value from the database, said fingerprint is compared with a database of registered fingerprints, i.e. a watermark is sent to a database and is matched to a registered watermark which contains owner information then forwarding the content signature to the owner's database where it is matched to the registered content signature and song information (Brunk-Col. 7, lines 4-30); and

matching a content signature with a registered content signature (Col. 1, lines 50-65; Col. 5, lines 1-26; Col. 6, lines 14-33);

comparing a watermark with a content signature to determine if the content is authentic or modified (Col. 6, lines 39-53; Col. 7, lines 4-30), Note: the watermark and the content signature have to have identification information present in order to determine whether or not they match.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alattar to include to include identifying said received content by redundant utilization of both of said generated fingerprint and said analyzing; if said derived fingerprint matches a registered fingerprint from said database of registered fingerprints, a first identification information associated with said stored watermark value is compared with a second identification information associated with said fingerprint to assess a status of said received content, using the known watermarking and fingerprinting technique as well as the known content-identifying technique taught by Brunk in combination with the watermarking and fingerprinting technique of Alattar, for the

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purpose of providing an extra layer of security to a media content and to provide a content verification tool.

Regarding claim 33, Alattar in view of Brunk teaches identifying is based on additional information stored in a registration database, i.e. version number stored in a system (Alattar-Col. 9, lines 14-21).

Regarding claim 36, Alattar in view of Brunk teaches at least one watermark is detected as a result of said analyzing (Alattar-Col. 1, lines 29-39; Col. 3, lines 10-17; Col. 8, lines 24-28; Col. 20, lines 46-51; Brunk-Col. 2, lines 10-33); and

the detected watermark and said fingerprint are combined to uniquely identify said received content (Alattar-Col. 20, lines 25-29; Brunk- Col. 2, lines 10-33; Col. 6, line 65-Col. 7, line 3).

Regarding claim 38, Alattar in view of Brunk teaches an agreement between said first and second identification information indicates the reception of a properly registered content, i.e. content is authentic (Brunk-Col. 6, lines 39-53; Col. 7, lines 4-30).

Regarding claim 40, Alattar in view of Brunk teaches a conflict between said first and second identification information indicates the reception of an improperly registered content or an altered content, i.e. content is modified (Brunk-Col. 6, lines 39-53; Col. 7, lines 4-30).

Regarding claim 42, Alattar in view of Brunk teaches cryptographic techniques are employed to ensure secure communications with said database, i.e. using private keys for accessing a private database (Alattar-Col. 12, lines 49-63; Brunk-Col. 7, lines 29-50).

3. Claims 3, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alattar in view of Brunk and further in view of Baker (6,912,010).

Regarding claim 3, Alattar in view of Brunk teaches all elements of claim 2.

Alattar in view of Brunk does not teach said unique watermark value is written into the user bits of said program's SMPTE time code.

Baker teaches a source ID is written into the user bits of the program's SMPTE time code (Col. 1, lines 44-48; Col. 2, lines 20-35).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alattar in view of Brunk's watermark embedding technique to include writing the watermark value into the user bits of a vertical interval time code for the purpose of saving program signal bandwidth.

Regarding claim 15, Alattar in view of Brunk teaches all elements of claim 10.

Alattar in view of Brunk does not teach a source ID is inserted into an auxiliary information area of said content.

Baker teaches said watermark value is inserted into an auxiliary information area of said content (Col. 1, lines 44-48; Col. 2, lines 20-35).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alattar in view of Brunk's watermark embedding technique to include writing the watermark value into the user bits of a vertical interval time code for the purpose of saving program signal bandwidth.

Regarding claim 16, Alattar in view of Brunk and further in view of Baker (Col. 1, lines 44-48) teaches said auxiliary information area is reserved for an SMPTE time code.

4. Claims 20-23 and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alattar in view of Brunk and further in view of Nicholas (US 2002/0054089).

Regarding claim 20, Alattar in view of Brunk teaches all elements of claims 10, 17, and 18.

Alattar in view of Brunk does not clearly teach production of at least one match as a result of said comparing is indicative of an incomplete registration.

Nicholas teaches a website registration process in which a user registers for a website by providing a username and password. If the username is already being used by another customer, then the registration is incomplete and the user is notified to enter a different username (Para. 43).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alattar in view of Brunk's registration process to use the known registration process taught by Nicholas. Known work in one field of endeavor, i.e. website registration, may prompt variations of it for use in either the same field or a different one, i.e. watermark/fingerprint registration, based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

Regarding claim 21, Alattar in view of Brunk in view of Nicholas teaches notifying at least one of an applicant or a content owner, i.e. if the username is already being used by another customer, then the user is notified to enter a different username (Nicholas-Para. 43).

Regarding claim 22, Alattar in view of Brunk teaches all elements of claims 10, 17, and 18.

Alattar in view of Brunk does not clearly teach registering is partially completed when said comparing produces at least one match.

Nicholas teaches a website registration process in which a user registers for a website by providing a username and password. If the username is already being used by another customer, then the registration is incomplete and the user is notified to enter a different username (Para. 43).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alattar in view of Brunk's registration process to use the known registration process taught by Nicholas. Known work in one field of endeavor, i.e. website registration, may prompt variations of it for use in either the same field or a different one, i.e. watermark/fingerprint registration, based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

Regarding claim 23, Alattar in view of Brunk in view of Nicholas teaches contacting at least one of an applicant for registration or a content owner, i.e. if the username is already being used by another customer, then the user is notified to enter a different username (Nicholas-Para. 43); and

updating said database in accordance with the response(s) of said applicant or said content owner, i.e. the user enters a unique username and the database is updated with the new username (Nicholas-Para. 43; Alattar-Col. 10,



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lines 24-30; Col. 10, lines 29-36 of US 6,505,160 which is incorporated by reference from Col. 10, lines 30-36 of Alattar).

Regarding claim 28, claim is analyzed with respect to claim 20.

Regarding claim 29, claim is analyzed with respect to claim 21.

Regarding claim 30, claim is analyzed with respect to claim 22.

Regarding claim 31, claim is analyzed with respect to claim 23.

5. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alattar in view of Brunk in view of Serret-Avila (US 6,785,815) and further in view of Nakamura (US 6,915,422).

Regarding claim 35, Alattar in view of Brunk teaches all elements of claim 32.

Alattar in view of Brunk further teaches said identifying comprises comparing said fingerprint with a database of registered fingerprints (Alattar-Col. 20, lines 50-55; Brunk-Col. 12, lines 34-47).

Alattar in view of Brunk does not clearly teach no watermarks are detected as a result of said analyzing; and if no fingerprint matches are discovered, reporting the reception of an unregistered content.

Serret-Avila teaches content, when registered, includes a strong watermark and a digital signature included in a weak watermark (Col. 6, lines 60-67). When a user attempts to access media, it is checked for the presence of the strong watermark and the digital signature. (Col. 6, lines 32-45; Col. 6, line 66-Col. 7, line 21). If no watermark is found, the content is determined to be unregistered (Col. 6, line 66-Col. 7, line 21).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alattar in view of Brunk to include if no watermarks are detected as a result of said analyzing; and if no fingerprint matches are discovered, determining the reception of an unregistered content, as taught by Serret-Avila, for the purpose of inhibiting the use of previously-registered content that has been improperly modified (Serret-Avila-Col. 7, lines 17-21).

Alattar in view of Brunk in view of Serret-Avila does not clearly teach reporting the reception of an unregistered content.

Nakamura teaches a process wherein a host checks whether or not a user is registered by determining if the user's telephone number is stored in a

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database. If not, the user is determined to be unregistered and an unregistered notification screen is displayed to the user (Col. 8, line 55-Col. 9, line 8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alattar in view of Brunk to include reporting the reception of an unregistered content, using the known process of displaying an unregistered notification screen taught by Nakamura. Known work in one field of endeavor, i.e. user registration, may prompt variations of it for use in either the same field or a different one, i.e. watermark/fingerprint registration, based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

6. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alattar in view of Brunk and further in view of Zhao (US 6,487,301).

Regarding claim 39, Alattar in view of Brunk teaches all elements of claim 32.

Alattar in view of Brunk teaches in the event of a conflict between said first and second identification information the content is considered to be modified (Brunk-Col. 6, lines 39-53; Col. 7, lines 4-30).

Alattar in view of Brunk does not clearly teach issuing a report.

Zhao teaches sending an indication of whether content is authentic or modified to the source of the content (Col. 16, lines 36-55; Col. 17, lines 22-57; Col. 18, lines 1-6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alattar in view of Brunk to include issuing a report in the event of a conflict between an identification information in a watermark and identification information in a fingerprint, as taught by Zhao, so as to enable an owner to pursue a copyright infringement violator (Zhao-Col. 3, lines 4-30).

#### **(10) Response to Argument**

##### **I. Alattar fails to teach or suggest using watermarks and fingerprints for redundant identification**

In response to appellant's arguments that the given reference does not teach "using watermarks and fingerprints for redundant identification," Page 12, lines 4-5, the Office Action mailed 2 September 2009 points out the fact that Alattar does not clearly teach "redundantly identifying said...said broadcast program," Page 5, lines 13-18. Alattar teaches a watermark can include additional information in the form of various identifiers which are compared to identifiers located in a database, (Col. 10, lines 10-36), and using a watermark in conjunction with a fingerprint in which the fingerprint is matched to a corresponding fingerprint in a database (Col. 20, lines 20-57). Alattar further teaches a watermark may contain an identifier for broadcast monitoring, version

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information, hidden auxiliary identifiers that identify content and its source, and identify which movie was broadcast, who broadcast it, and when it was broadcast (Col. 8, lines 13-36, Col. 8, line 60-Col. 9, line 4). However, Brunk is used to teach this limitation.

Brunk teaches a watermark for use in conjunction with a content signature, i.e.

fingerprint (Col. 6, lines 40-52; Col. 6, line 65-Col. 7, line 50). The content signature can be used to determine a content ID, licensing or registration data, other metadata, etc

(Brunk-Col. 1, lines 50-64). The watermark can be used to determine owner ID,

metadata, security information, copy control data, etc (Brunk-Col. 6, line 65-Col. 7, line

3). A person of ordinary skill in the art would have known the similarities in the content

signature data and the watermark data and realized that the two may carry the same or

very similar data, e.g. licensing/registration data-security and copy control data, other

metadata-metadata, content ID-content identifying information etc, to identify the

content. Therefore, the content signature and watermark data may be used to

“redundantly” identify the content.

## **II. Brunk fails to teach or suggest using watermarks and fingerprints for redundant identification**

In response to appellant's arguments that the given reference does not teach “using watermarks and fingerprints for redundant identification,” Page 13, lines 1-2, the examiner agrees. Alattar teaches a watermark can include additional information in the form of various identifiers which are compared to identifiers located in a database, (Col. 10, lines 10-36), and using a watermark in conjunction with a fingerprint in which the

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fingerprint is matched to a corresponding fingerprint in a database (Col. 20, lines 20-57). Alattar further teaches a watermark may contain an identifier for broadcast monitoring, version information, hidden auxiliary identifiers that identify content and its source, and identify which movie was broadcast, who broadcast it, and when it was broadcast (Col. 8, lines 13-36, Col. 8, line 60-Col. 9, line 4). Brunk teaches a watermark for use in conjunction with a content signature, i.e. fingerprint (Col. 6, lines 40-52; Col. 6, line 65-Col. 7, line 50). The content signature can be used to determine a content ID, licensing or registration data, other metadata, etc (Brunk-Col. 1, lines 50-64). The watermark can be used to determine owner ID, metadata, security information, copy control data, etc (Brunk-Col. 6, line 65-Col. 7, line 3). As one can see, contrary to appellant's assertions that the data carried by the watermarks is "different from" the data carried by the fingerprints, (Page 13, lines 9-10), the two may carry the same information. A person of ordinary skill in the art would have known the similarities in the content signature data and the watermark data and realized that the two may carry the same or very similar data, e.g. licensing/registration data-security and copy control data, other metadata-metadata, content ID-content identifying information etc, to identify the content. The claims state: (1) comparing watermark data to watermark data, (2) comparing fingerprint data to fingerprint data, and (3) comparing a watermark value to a fingerprint value. As stated above, Alattar and Brunk both teach limitations (1) and (2). Brunk further teaches limitation (3) by stating a "content signature also can be compared to digital watermark data, and if the content signature and the digital watermark data match (or otherwise coincide) the content is determined to be authentic. If different, however, the

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content is considered modified,” (Col. 6, lines 39-52). Therefore, the content signature and watermark data may be used to “redundantly” identify the content.

**III. Alattar and/or Brunk fail to teach or suggest utilizing watermarks and fingerprints in the manner recited in the pending claims**

In response to appellant’s arguments that the given reference does not teach “utilizing watermarks and fingerprints in the manner recited in the pending claims,” Page 13, lines 16-17, the examiner agrees. As stated above, Alattar in view of Brunk explicitly teaches redundantly identifying content using watermarks and fingerprints. It should be noted that Brunk is explicitly incorporated by reference in Alattar, (Col. 20, lines 26-25).

Appellant further states the (1) and (2) limitations stated above “enable identification of the content even in scenarios where watermarks are not detected properly and/or if the detected watermarks fail to match the derived fingerprints,” Page 15, lines 1-3. As to this statement, the examiner respectfully disagrees. The claim limitations do not encompass a scenario wherein the watermarks do not match. The limitations clearly state “if a detected watermark value matches a registered watermark value...cross-checking said fingerprint value...” Regardless, however, Alattar in view of Brunk teaches identifying a content using a watermark, using a fingerprint, and by the combination of the two.

**IV. Alattar and/or Brunk fail to teach or suggest “a first identification...said registered fingerprint”**

In response to appellant’s arguments that the given references do not teach “a first identification...said registered fingerprint”, Page 16, lines 8-11, the examiner respectfully disagrees. Brunk clearly states a “content signature also can be compared to digital watermark data, and if the content signature and digital watermark data match (or otherwise coincide) the content is determined to be authentic.” A person of ordinary skill in the art possessing ordinary creativity, common sense, and logic would have known that since the signature and watermark may have the same data that when compared and matched, the same data from both the signature and the watermark would be used. Alattar in view of Brunk teaches using various content identifiers, each of which is associated with the watermarks and the fingerprints (see above arguments).

Appellant further states “Examiner is overlooking...(1) and (2),” Page 17, lines 3-5. As to this statement, the examiner respectfully disagrees. As pointed out above, Alattar in view of Brunk teaches identifying a content using a watermark, using a fingerprint, and by the combination of the two in separate steps.

**V. The methodologies of Alattar and/or Brunk fail to provide many capabilities associated with redundant identification that is recited in the pending claims**

In response to appellant’s arguments that the given references do not “provide many capabilities associated with redundant identification that is recited in the pending



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claims”, Page 18, lines 9-11, the examiner respectfully disagrees. Appellant lists three scenarios that appellant contends are “recited in the pending claims.” This is not the case, however. There is no indication that the claims encompass these scenarios. Firstly, the scenario “watermarks are missing from the content” is directly contrary to the claim language which states the necessary steps of comparing watermarks and subsequently comparing fingerprints only if the detected watermark matches a registered watermark. Scenarios B) and C) will be determined when the watermark data is compared to the fingerprint data, as taught by Alattar in view of Brunk. The content will be identifiable by the correct watermark or the correct fingerprint since both contain content identifiers.

**VI. The references of record fail to render the features of pending claims 2, 4, 6, 7, 10, 10-14, 17-19, 24-27, 32, 33, 36, 38, 40, and 42 obvious**

In response to appellant’s arguments that the given references do not render the claims obvious, Page 19, lines 20-21, the examiner respectfully disagrees. As stated above, Alattar in view of Brunk teaches all claimed limitations and is set forth in a valid combination. Combining the two references provides an extra layer of security for media content and a valuable content verification tool.

**VII. Rejection of Claims 3, 15, 16, 20-23, 28-31, 35, and 39**

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No particular arguments are presented over and above those previously raised/addressed. Accordingly, the examiner respectfully disagrees that these claims should be found likewise patentable.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Jeremy Duffield/

Patent Examiner

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Conferees:

/Scott Beliveau/

Supervisory Patent Examiner, Art Unit 2427

/John W. Miller/

Supervisory Patent Examiner, Art Unit 2421